CLAIMS

What is claimed is:

1. A biological signal sensor comprising:

a first, a second and a third electrodes disposed on a common base and made as closed circuits and arranged in one another, the first electrode being disposed externally and the third electrode forming a smaller circuit;

a fourth electrode disposed inside the smaller circuit, the fourth electrode and the first electrode forming a pair of current-feeding electrodes; and

a pair of measuring electrodes formed by the second and the third electrodes.

2. The sensor of Claim 1, wherein the electrodes made as closed circuits are ring shaped.

3. The sensor of Claim 2, wherein the ring-shaped electrodes are arranged concentrically.

4. The sensor of Claim 1, wherein the common base is made flexible.

5. The sensor of Claim 1, wherein the second and third electrodes have about the same area.

6. The sensor of Claim 1, wherein the pair of measuring electrodes are made of insulated parts electrically connected with each other.

7. The sensor of Claim 1, further comprising a sensor of non-rheographic modality disposed on the common base inside an opening in the fourth electrode.

8. The sensor of Claim 7, wherein the sensor of non-rheographic modality comprises a pulse wave sensor.

9. A biological signal sensor comprising:

a first, a second and a third electrodes disposed on a common base, the first and the second electrode being configured as closed circuits disposed in one another and the first electrode being an external electrode;

the third electrode being disposed inside the second electrode and forming a pair of current feeding electrodes with the first electrode; and

the second electrode forming a pair of measuring electrodes with either the first electrode or the third electrode.

10. The sensor of Claim 9, wherein the electrodes made as closed circuits are ring-shaped.

11. The sensor of Claim 10, wherein the ring-shaped electrodes are arranged concentrically.

12. The sensor of Claim 9, wherein the common base is made flexible.

13. The sensor of Claim 9, further comprising a sensor of non-rheographic modality disposed on the common base inside an opening in the third electrode.

14. The sensor of Claim 13, wherein the sensor of non-rheographic modality comprises a pulse wave sensor.

15. A device for recording biological signals made as a wrist-watch or a bracelet, the device comprising:

a sensor disposed in a case, the sensor comprising:

a first, a second and a third electrodes disposed on a common base and made as closed circuits and arranged in one another, the first electrode being disposed externally and the third electrode forming a smaller circuit;

a fourth electrode disposed inside the smaller circuit, the fourth electrode and the first electrode forming a pair of current-feeding electrodes; and

a pair of measuring electrodes formed by the second and the third electrodes;

wherein the sensor is mounted on a wall intended to face the surface of a patient's arm.

16. A device for recording biological signals made as a wrist-watch or a bracelet, the device comprising:

a biological sensor disposed in a case, the biological sensor comprising:

a first, a second and a third electrodes disposed on a common base, the first and the second electrode being configured as closed circuits disposed in one another and the first electrode being an external electrode;

the third electrode being disposed inside the second electrode and forming a pair of current feeding electrodes with the first electrode; and

the second electrode forming a pair of measuring electrodes with either the first electrode or the third electrode;

wherein the biological sensor is mounted on a wall intended to face the surface of a patient's arm.